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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,204	10/03/2003	Dehangshu Banerjee	KG-2050	2123

7590 03/22/2005

Mr. Kevin P. Weldon  
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EXAMINER

MAI, NGOCLAN THI

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/678,204	BANERJEE, DEBANGSHU	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ngoclan T. Mai	1742	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) 19-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's election with traverse of with in the reply filed on 11/22/04 is acknowledged. The traversal is on the ground(s) that the non-elected claims include sufficiently few species that a search and examination of all the species at one time would not impose a serious burden on the examiner is not found persuasive because while a search might be employed for all species, examination and/or analysis for each species must be conduct differently and separately since each species is patentable distinct from the other by the differences in components and/or concentration. Therefore a serious burden is imposed on the examiner should all species are examined together. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior ad, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 19-58 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on November 22, 2004.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horie et al. (JP 361069941 A).

Horie et al discloses a wear resistant sintered alloy having superior oxidation resistance comprising a hard phase of tungsten carbide (WC) and a binding phase consisting of Ni, Co, Mo and Cr in total amount of 10-30 wt.% of the sintered alloy. The Mo and Cr contents in the binding phase are 2-10% ( $\text{Mo}/(\text{Ni}+\text{Co}+\text{Cr}+\text{Mo}) = 1/50-1/10$ ) and 5-20% ( $\text{Cr}/(\text{Ni}+\text{Co}+\text{Cr}+\text{Mo}) = 1/20-1/5$ ), respectively, and the ratio of Co/Ni is from 9:1 to 1:9. Note that the WC phase taught would therefore be between 70-90 wt% of the sintered alloy.

The difference between the claims and Horie et al is that Horie et al does not specifically teach the weight percentages or concentrations of Cr, Co, Ni, and Mo in the sintered alloy or cemented carbide.

However since Horie et al teaches the sintered alloy having WC phase and binder phase with constituents whose wt% ranges overlap those recited by the claims (see applicant claim 3); such overlapping range renders applicant's composition prima facie obvious despite difference in non-overlapping areas, see *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974). Furthermore, in view of the overlapping

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in composition, the composition taught by Horie et al would be expected to possess the same properties of applicant's claimed cemented carbide, claims 5-11 of the instant application. See *In re Best*, 195 USPQ 430. To distinguish over prior art, applicant needs to demonstrate (e.g. by comparative test data) that the more narrowly claimed ranges for the alloying constituents are somehow critical and productive of new and unexpected results.

With respect to the limitation "suitable for fabrication by electric discharge machining" in claims 1-11, such intended use of the claimed cemented carbide or (Horie et al. 's sintered alloy) does not lend patentability to the cemented carbide or sintered alloy. A mere statement of a new use for an otherwise old or obvious composition cannot render a claim to the composition patentable. See *In re Lemin*, 51 CCPA 942, 326 F.2d 437, 140 USPQ 273 (1964), *In re Thuau* 135 F.2d 344, 57 USPQ 324 (CCPA 1943), *Ex parte Douros* 163 USPQ 667 (POBA), and *In re Craige*, 188 F.2d 505, 89 USPQ 393 (CCPA 1951).

Regarding the limitation of "cemented carbide body made by electric discharge machining" of claims 12-18, note that the claims, which are the same as claims 1-11, are drawn to product and it has been established that a product by process claim is directed to the product per se, no matter how actually made, *In re Kirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Thorpe*, 227 USPQ 964 (CAFC 1985), which makes it clear that it is the patentability of the final product per se which must be determined in a product by process claim and not the patentability of the process. Since product in the


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product-by-process claim is the same as or obvious from a product of the prior art the claim is unpatentable even though the prior product was made by a different process.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoelan T. Mai whose telephone number is (571) 272-1246. The examiner can normally be reached on 9:30-6:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ngoelan T. Mai  
Primary Examiner  
Art Unit 1742

n.m.